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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,737	05/30/2001	Takuya Kotani	B588-020	6807

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EXAMINER	
NGUYEN, CAM LINH T	

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/867,737	KOTANI, TAKUYA	
	Examiner	Art Unit	
	CamLinh Nguyen	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, 4 - 6, 10 – 22, 25 - 27, 31 – 39, 44 – 48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4 - 6, 10 – 22, 25 - 27, 31 – 39, 44 – 48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/9/2006 has been entered.

2. This Office Action is response to amendment filed on 3/9/2006. Consequently, claims 2-3, 7 – 9,23 – 24, 28 – 3040 – 43 have been cancelled; claims 44 – 51 have been newly added; claims 1, 4 - 6, 10 – 22, 25 - 27, 31 – 39, 44 – 48 are currently pending for further processing.

Election/Restrictions

3. Newly submitted claims 49 – 51 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claims 1, 4 - 6, 10 – 22, 25 - 27, 31 – 39, 44 – 48 are directed to a method for storing data in a storage medium which is classified in class 707/100 (database schema or database structure) (group I), and claims 49 – 51 are directed to a method for accessing desired data on a storage medium which is classified in class 707/1-3 (database or file accessing) (group II). Group I is different and is classified in different subclass from group II, and do not require group II accompany together in order for group I to work properly. Therefore, group II must be restricted.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 49 – 51 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 39 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 39 is directed to a software program for a computer to execute an information processing method, per se, but lacking a storage medium that enables any underlying functionality to occur. Therefore, claim 39 appears non-statutory.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 4 – 6, 11 – 18, 20, 22, 25 – 27, 32 – 39, 45, 47 - 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al (U.S. 7,010,144 B1) in view of Ashby et al (U.S. 6,370,539 B1).

♦ As per claims 1, 22, 39, 48,

Davis et al discloses an information processing method/apparatus for storing binary data and metadata related to the binary data into a storage medium, comprising:

- "A first storage step of storing said metadata of the read file into a first block storage area that is a predetermined continuous area capable of storing metadata of the plurality of files on said storage medium" See Fig.3, col. 11, lines 42 – col. 12, lines 20. In particular, Davis teaches a method for maintaining metadata and image in separate file or database (col. 8, lines 20 – 36, Davis). Davis teaches that the metadata and the image can be stored in a same memory (col.8, line 24). Therefore, the "first block storage area" corresponds to the area that stores the metadata file in the memory or database. "Plurality of files on said storage medium" corresponds to plurality of image file and metadata file in the camera memory.
- "A second storage step of storing content data of the read file related to said metadata of the read file into a second storage area for storing content data, other than said first block storage area on said storage medium" corresponds to the second area in the memory or database that stores the image file (col. 8, lines 20 – 36, Davis).
    - The "content data" corresponds to " target image" (col. 8, lines 20).
- "A third storage step of storing link information that links said metadata stored… with said binary data" See col. 9, lines 26 – 30, col. 11, lines 25 – 41 of Davis. "Link information" corresponds to the links in Davis invention. This link information is stored together with the image file.

Referring to Fig. 3, Davis teaches that the compliant application produces an image file that include the image and the metadata (col. 11, lines 63 – 65), the metadata is forwarded to metadata server, and the non-complaint application received the image file with the water mark in it (col. 12, lines 5 – 7) and forwards it to another complaint application (col. 12, lines 8 – 12). Therefore, the Davis patent must disclose a means (Fig. 1 and 3) to read a file (corresponds to a "reading step of reading a file); means (Fig. 1 and 3) to determine the file whether the read file includes metadata, and to separate the metadata and the content data into separate file (see Fig. 3 of Davis).

However, Davis et al does not specifically disclose the order of storing the binary data, metadata, and linking data. Nonetheless, such is not a patentable distinction. One of ordinary skill in the art would have recognized that either the metadata or the binary data might have been stored first. The choice of sequence provides no unexpected or unobvious result. The ordinary skilled artisan would have recognized that the linking of metadata to binary data would have to occur after those two types of data had been captured and stored. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to practice the invention in different sequence steps such as capture and store either binary data or metadata first, because the choice of sequence provides no unexpected or unobvious result.

Davis does not clearly disclose that the storage area is a predetermined continuous area. However, Ashby, on the other hand, discloses a method for managing memory in the system comprising a memory manager that able to subdivides the memory into multiple memory

blocks (col. 25, lines 3 – 6, Ashby). Ashby also teaches that each subdivided block is contiguous area of memory of a predetermined (col. 25, lines 6 – 8, Ashby).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Ashby into the invention of Davis, so that storing metadata, content data, and the linking information in a predetermined continuous area because it is desirable to minimum the usage at initialization time and then allocating additional memory later, memory fragmentation can be reduced as later dellocation and relocation results in resizing the memory usage of the interface layer (col. 25, lines 18 – 22 of Ashby).

- As per claims 4 - 5, 25 – 26, the combination of Davis and Ashby disclose:
  - "Link information is described as a path and a file name of said binary data" See col. 7, lines 49 – 51, col. 8, lines 16 – 19 of Davis. Davis discloses the "identifier number" that corresponding to a file name and the pointer corresponds to the path.
  - "Link information is a head sector number of an area where said content data is stored" the link data in Davis links metadata and the content data and is represented as a pointer. Therefore, the pointer is a head sector number of an area where said content data is stored.
- As per claims 6, 27, the combination of Davis and Ashby disclose:

Claims 6, 27 include all limitation in claim 1 and 22 further include a registration step of registering link information. This registering step corresponds to the step of embedded the watermark into the image file.

- As per claims 11 - 12, 32 – 33, the combination of Davis and Ashby disclose:

Claims 11 – 12 include: "generating an area file having a size the same as that of said metadata storage area and holding the file on said storage medium". As noted above, the metadata also automatically recorded with the image (see Davis patent). Therefore, the user can generate an area file having the same size as metadata storage area. It is logical steps for delete an area file, then stored metadata from the start position of an area.

♦ As per claims 13 - 15, 34 – 36, the combination of Davis and Ashby disclose:

Davis fails to disclose "First storage area is allocated in a directory where said binary data is stored". However, Ashby, on the other hand, discloses a directory file that is able to ascertain the location of the file directory on the storage medium (col. 21, lines 22 – col. 22, lines 8, Ashby). It would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Ashby into the invention of Davis, because it is desirable to minimum the usage at initialization time and then allocating additional memory later, memory fragmentation can be reduced as later dellocation and relocation results in resizing the memory usage of the interface layer (col. 25, lines 18 – 22 of Ashby).

♦ As per claims 16, 37, the combination of Davis and Ashby disclose:

- "Metadata includes description of information specifying related binary data" See col. 10, lines 30 – col. 11, lines 20 of Davis.

♦ As per claims 17 - 18, 38, the combination of Davis and Ashby disclose:

- " Metadata is described in a predetermined data description language" and "Metadata is described in a predetermined data description language such as XML, SGML, and TIFF)" See col. 14, lines 52 – 67 of Davis.

♦ As per claim 20, the combination of Davis and Ashby disclose:

- "Binary data is at least one of still image data, video data, sound data and music data" See col. 5, lines 51 – 55 of Davis.

♦ As per claims 45, 47, the combination of Davis and Ashby disclose:

- " Link information is stored as part of said metadata at the third storage step" since the link information embedded in the image file can identify the metadata corresponding, therefore, the link information must include as a part of metadata.

8. Claims 10, 21, 31, 44, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al (U.S. 7,010,144 B1) in view of Ashby et al (U.S. 6,370,539 B1) as applied to claims 1, 4 – 6, 11 – 18, 20, 22, 25 – 27, 32 – 39, 45, 47 - 48 above, and further in view of Karl Arnold Belser (U.S. 6,008,960).

♦ As per claims 10, 21, 31,

The combination of Davis and Ashby fail to disclose: "Storage medium is a magneto-optic disk, and wherein an inner radial side of said magneto-optic disk is allocated as said first block storage area".

However, this is a well-known teaching in the art. Belser provides an example. Belser teaches that the data (track) is recorded from an inner to outer radius (see claim 3 in col. 24 of Belser). Belser discloses a storage medium is a optical disk (See Fig. 1 of Belser).

Davis teaches that the memory stores the metadata and the content data can be ROM RAM, and removable storage device (col. 4, lines 1 – 3, Davis). Davis does not teach that the removable storage device can be an optical disk.

However, as well known in the art, a removable storage device can be included a magneto-optic disk as disclosed by Belser (Fig. 4, col. 8, lines 44 – 46 of Belser).

Since the invention of Belser is in the same field with Davis and Ashby (storing data in a storage device), it would have been obvious to one with ordinary skill in the art at the time the invention was made to use an optical disk for storing data (disclosed by Belser) into the combination of Davis and Ashby because the combination would provide the user a faster method for accessing data and a portable device for storing data.

- As per claim 44, 46, the combination of Davis, Ashby and Belser disclose:
  - " Said link information is stored into an area adjacent to corresponding metadata, at the third storage step". Davis teaches a method that can link metadata and the image using watermark embedded in the image file (col. 9, lines 24 – 30, Davis). In combination with Belser, the metadata is stored in a inner area and the binary data is stored in the outer side of the magnetic disk, the "link information" must be stored into an area adjacent to corresponding metadata, at the third storage step.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al (U.S. 7,010,144 B1) in view of Ashby et al (U.S. 6,370,539 B1) as applied to claims 1, 4 – 6, 11 – 18, 20, 22, 25 – 27, 32 – 39, 45, 47 - 48 above, and further in view of The Digital Imaging Group's DIG35 Initiative, " the Power of Metadata is Propelling digital Imaging Beyond the Limitations of Conventional Photography", August, 1999, page 1 – 7.

- As per claim 19,

The combination of Davis and Ashby fail to disclose " Metadata abides by the DIG35 standard". However, this is a well-known technique. The Digital Imaging Group's DIG35 Initiative provides an example (see page 1 – 7 of the Digital Imaging Group's DIG35 Initiative). Since the invention of the Digital Imaging Group's DIG35 Initiative is in the same field of the combination between Davis/Ashby (managing metadata), it would have been obvious to one with ordinary skill in the art at the time the invention was made to abides metadata using the DIG35 standard (disclosed by the Digital Imaging Group's DIG35 Initiative) into the combination of Davis and Ashby because the combination would provide the user the ease of use, flexibility and range of application results that can be achieved with metadata enhanced digital imaging (see section Overview of the Digital Imaging Group's DIG35 Initiative, page 2).

Response to Arguments

10. Applicant's arguments with respect to claims 1, 4 - 6, 10 – 22, 25 - 27, 31 – 39, 44 – 48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- John Kulakowski (U.S. 4,575,827) discloses a self-archiving data recording.
- Hirohisa Yamaguchi (U.S. 5,146,369) discloses a data copying method for disk storage medium.
- Lin et al (U.S. 6,808,783 B1) discloses a storage media with non-uniform properties.

- Zhang et al (U.S. 6,968,366 B1) discloses a system and method for management creation, storage, search and delivery of rich media optimized for e-commerce in a distributed information network.
- Fuller et al (U.S. 2005/0033760 A1) discloses an embedded metadata engines in digital capture devices.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CamLinh Nguyen whose telephone number is (571) 272 - 4024. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272 - 4023. The fax phone number for the organization where this application or proceeding is assigned is 571 – 273 - 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen, Cam-Linh

Art Unit 2161

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